

CONSTRUCTION SPECIFICATION
NATURAL RESOURCES CONSERVATION SERVICE
CLOSURE OF WASTE IMPOUNDMENTS

SCOPE

This item shall consist of the measures necessary to close a waste impoundment that is no longer in service. Also included are measures necessary to properly remove the contents of a waste impoundment by agitating and pumping, dredging, or a combination of both. Construction operations are to be conducted in such a manner that erosion, air, water, and noise pollution will be minimized and held within legal limits established by state regulations.

All land application of wastes shall be according to guidelines in the closure plan and the requirements of Alabama NRCS conservation practice standard [Nutrient Management, Code 590](#).

WASTE REMOVAL**Agitation and Pumping**

Removal of the contents of a waste impoundment by agitation and pumping is often done with rental type equipment and generally does not require construction measures. However, some operators may elect to install permanent pump and pipeline locations. If a pipeline is installed through or into the waste impoundment embankment, the construction techniques and methods shall be approved by a qualified credentialed professional (QCP).

Dredging

Sludge that is removed with excavation equipment may be temporarily stockpiled near the waste impoundment. If possible, the stockpile area shall slope slightly toward the waste impoundment. Uncontaminated rainfall runoff shall be diverted from the waste impoundment. A drainage fence or filtering device may be necessary to prevent solids from reentering the waste impoundment. In topographical locations in which positive drainage toward the waste impoundment cannot be obtained, a sump pump system may be required to return the liquid drainage to the waste impoundment. If the sludge has minimum drainage associated with the dredged material, a grass filter can be designed to treat the liquid in lieu of the sump pump system.

If the existing soils at the stockpile location are not adequate to prevent seepage from entering the groundwater, a 6-inch thick compacted clay pad or other equally impermeable liner is required beneath the stockpile. The perimeter of the stockpiled material shall be protected as needed with an earthen berm or other approved structure to exclude uncontaminated runoff and to ensure drainage of the dredged material returns to the waste impoundment, a sump pump, or an appropriate grass filter.

The stockpiled material should be allowed to dry, tested for nutrient content, and then land applied at recommended rates. After land application of the dried material, the temporary stockpile area shall be smoothed and vegetated according to the vegetation plan.

WASTE IMPOUNDMENT CLOSURE

Agitate and pump the waste impoundment contents and remove the unpumpable material in the bottom of the waste impoundment according to the closure plan.

If the waste impoundment is to be closed by filling with soil, the soil shall be placed in maximum 9-inch thick layers with each layer being compacted using two passes of the earthmoving equipment. Soil moisture content shall be maintained to ensure adequate compaction of the material. The filling process shall continue until the waste impoundment is overfilled 5 percent to allow for settlement. The final compacted layer shall have at least a 12-inch compacted thickness and be made with the most clayey material on site. The final surface shall be mounded so that any surface water will not collect. Potential rainfall runoff water upslope from the closed waste impoundment shall be diverted from the closure. If the final surface is to be vegetated, apply at least 4 inches of topsoil material, smooth, and vegetate the area according to the vegetation plan.

POLLUTION CONTROL

Waste removal, land application of the dry waste or wastewater, and all construction activities are to be conducted in such a manner that all pollution is minimized. Best management practices (BMP's) shall be utilized where needed.